SCORE Search Results Details for Application 10573229 and Search Result 20090528_121050_us-10-573-229a-1.rng.

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This page gives you Search Results detail for the Application 10573229 and Search Result 20090528_121050_us-10-573-229a-1.rng.

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GenCore version 6.3
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OM nucleic - nucleic search, using sw model

Run on: May 31, 2009, 21:45:58 ; Search time 320 Seconds
(without alignments)
47647.773 Million cell updates/sec

Title: US-10-573-229A-1
Perfect score: 920
Sequence: 1 tctgtagaggggaatggctg.....acccccaaagaaaccttcta 920

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 14112681 seqs, 8286569208 residues

Total number of hits satisfying chosen parameters: 28225362

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : N_Geneseq_200812:*
1: geneseqn1:*
2: geneseqn2:*
3: geneseqn3:*
4: geneseqn4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.		Score	% Query Match	Length	DB	ID	Description
1		920	100.0	920	2	ADZ14485	Adz14485 DNA encod
2		920	100.0	920	3	AEL40763	Ael40763 Human tum
3	c	178.2	19.4	390	2	ADZ14751	Adz14751 ORF DNA e
4	c	176.6	19.2	390	3	AEL41029	Ael41029 Human tum
5		122.6	13.3	561	1	ADY36463	Ady36463 HIRA geno
6		122.6	13.3	561	1	ADS31075	Ads31075 Human gen
7		121.2	13.2	541	1	ADY36462	Ady36462 HIRA geno
8		121.2	13.2	541	1	ADS31074	Ads31074 Human gen
9		104.8	11.4	737	1	ADC20771	Adc20771 Human sec
10		104.8	11.4	737	1	ADA44374	Ada44374 Human sec
11		104.8	11.4	737	1	ADF10918	Adf10918 Human sec
12		104.8	11.4	737	1	ADA98650	Ada98650 Human sec
13		104.8	11.4	737	3	AOD72587	Aod72587 Human sec
14		104.8	11.4	797	1	AAC79717	Aac79717 Human sec
15		104.8	11.4	797	1	ADC20168	Adc20168 Human sec
16		104.8	11.4	797	1	ADA43908	Ada43908 Human sec
17		104.8	11.4	797	1	ADF10604	Adf10604 Human sec
18		104.8	11.4	797	1	ADA98008	Ada98008 Human sec
19		104.8	11.4	797	3	AOD66200	Aod66200 Human sec
20		104.8	11.4	797	4	ATC73738	Atc73738 Human sec
21	c	104.8	11.4	137000	2	ADH77370	Adh77370 Human PTP
22	c	104.8	11.4	137000	3	AEE96219	Aee96219 Human PTP
23		104.2	11.3	744	2	AGE46923	Age46923 Human sin
24	c	101.8	11.1	138244	2	AEX41464	Aex41464 Human rhe
25	c	101.2	11.0	6000	4	ATN10540	Atn10540 Human tra
26	c	98.4	10.7	84105	2	AFS52981	Afs52981 Human pol
27	c	98	10.7	55927	2	AFI73361	Afi73361 Human gen
28	c	97.8	10.6	9245	2	AFI71693	Afi71693 Human gen
29	c	97.8	10.6	9245	2	AFI71694	Afi71694 Human gen
30		97.4	10.6	10252	1	AAS31966	Aas31966 Human liv
31		97.4	10.6	10252	1	AAK90931	Aak90931 Human dig
32		97.4	10.6	10252	1	ABN90321	Abn90321 Human liv
33		97.4	10.6	10252	1	ADJ15234	Adj15234 Human liv
34	c	97.4	10.6	142439	4	ATR89011	Atr89011 Human can
35		95.4	10.4	3361	2	ADQ64498	Adq64498 Novel hum
36	c	93.6	10.2	153170	2	ADQ17382	Adq17382 Human sof
37	c	92.2	10.0	101099	3	AEG93597	Aeg93597 Human tum
38	c	91.8	10.0	143550	2	AFI72487	Afi72487 Human gen
39		91.4	9.9	1399	4	ARY86811	Ary86811 Psoriasis
40		91.4	9.9	1410	4	ARY86813	Ary86813 Psoriasis
41		91.4	9.9	1458	4	ARY86809	Ary86809 Psoriasis
42		91.4	9.9	173805	1	ADL13775	Adl13775 Osteoarth
43		91.4	9.9	215308	3	ASQ09904	Asq09904 Human CTD

44	90.8	9.9	76118	2	AFI73937	Afi73937 Human gen
45	90.8	9.9	92117	1	ACN44746	Acn44746 Human gen

ALIGNMENTS

```
RESULT 1
ADZ14485
ID   ADZ14485 standard; DNA; 920 BP.
XX
AC   ADZ14485;
XX
DT   11-JUN-2007  (revised)
DT   16-JUN-2005  (first entry)
XX
DE   DNA encoding a human tumor associated antigen Seq 1.
XX
KW   chromosome 6; tumor-associated antigen; antisense therapy;
KW   RNA interference; diagnosis; cytostatic; cancer; metastasis; gene; ds.
XX
OS   Homo sapiens.
XX
PN   WO2005030250-A2.
XX
PD   07-APR-2005.
XX
PF   23-SEP-2004; 2004WO-EP010697.
XX
PR   26-SEP-2003; 2003DE-01044799.
XX
PA   (GANY-) GANYMED PHARM AG.
XX
PI   Tuereci O,  Sahin U,  Helftenbein G,  Schlueter V;
XX
DR   WPI; 2005-285105/29.
DR   P-PSDB; ADZ14486.
DR   PC:NCBI; gi22697845.
XX
PT   Compositions for treating and diagnosing cancer, contain agents that
PT   inhibit activity or expression of specific tumor-associated antigens, or
PT   bind to these antigens or nucleic acid encoding them.
XX
PS   Claim 1; SEQ ID NO 1; 388pp; German.
XX
CC   This invention relates to a novel pharmaceutical composition which
CC   comprises an agent that inhibits the activity or expression of a specific
CC   tumor-associated antigen (TAg). Specifically, it relates to tumor-
CC   associated antigens that are encoded by one of the following 75 nucleic
```

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CC   acids sequences, fragments or derivatives thereof as given in the
CC   specification. The present invention describes antisense nucleic acids
CC   that hybridize to these TAg polynucleotides that may be used for
CC   antisense therapy and RNA interference, as well as methods for diagnosing
CC   a disease associated with (abnormal) expression of TAg. Accordingly, it
CC   further relates to methods for determining regression, progression and
CC   onset of a disease by administering an antibody, optionally linked to a
CC   therapeutic or diagnostic agent, that binds to TAg. As such, cytostatic
CC   compositions derived thereof are used for treating a wide range of
CC   cancers and their metastases, where the agents that bind specifically to
CC   TAg, and the nucleic acids that encode them, are useful for diagnosis and
CC   monitoring. This polynucleotide is a human DNA sequence encoding a tumor
CC   associated antigenic protein of the invention.
CC
CC   Revised record issued on 11-JUN-2007 : Enhanced with precomputed
CC   information from BOND.
XX
SQ   Sequence 920 BP; 238 A; 255 C; 255 G; 172 T; 0 U; 0 Other;

  Query Match             100.0%;  Score 920;  DB 2;  Length 920;
  Best Local Similarity   100.0%;  Pred. No. 2.3e-273;
  Matches  920;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 TCTGTAGAGGGGAATGGCTGCTGTGTCATGGGGGTGCATGAGCAGCCCAGTGGAGAGGTG 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 TCTGTAGAGGGGAATGGCTGCTGTGTCATGGGGGTGCATGAGCAGCCCAGTGGAGAGGTG 60

Qy         61 CACTTGGTGAGAAACCGATGCCTCTGCCAACCACCTGCACTAACCTGCTGGGTCTGAGAC 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 CACTTGGTGAGAAACCGATGCCTCTGCCAACCACCTGCACTAACCTGCTGGGTCTGAGAC 120

Qy        121 TGAGCCACTTTGGAAGCTGATCTTGGAGCACCAGTCAAGCCCTTAGCTGGCTGCAGCCAC 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 TGAGCCACTTTGGAAGCTGATCTTGGAGCACCAGTCAAGCCCTTAGCTGGCTGCAGCCAC 180

Qy        181 AGCCAACAACAAGACTGCAACCTCCTGGGGGATCCTGAGCCAGAATCCCCTGGCTAAATT 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 AGCCAACAACAAGACTGCAACCTCCTGGGGGATCCTGAGCCAGAATCCCCTGGCTAAATT 240

Qy        241 GCTCCTTGATTCTTAACCCACAGAAATTGTGTAAGACCTCCATCAGGTGTCGACAAGGAA 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 GCTCCTTGATTCTTAACCCACAGAAATTGTGTAAGACCTCCATCAGGTGTCGACAAGGAA 300

Qy        301 GATCCCAGTAGGGCAGGAGACAGGAGCACCTCTGCTGTGGCCAATGCAGGAATGCTGGCC 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        301 GATCCCAGTAGGGCAGGAGACAGGAGCACCTCTGCTGTGGCCAATGCAGGAATGCTGGCC 360

Qy        361 ATCATTGCTTCTGCTGGGCGACTGAGAAGCATCACCCACTTCCCCAGAACCTTTTTTACG 420
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
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Db        361 ATCATTGCTTCTGCTGGGCGACTGAGAAGCATCACCCACTTCCCCAGAACCTTTTTTACG 420

Qy        421 TGGAGTGAAAACTTTAAGGGGCTGTCCAGCTAAACCTCCAACCTCCAGATCCCATGCCAA 480
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        421 TGGAGTGAAAACTTTAAGGGGCTGTCCAGCTAAACCTCCAACCTCCAGATCCCATGCCAA 480

Qy        481 TTTCTCTGCTTCTGCAAAAGGACTTCAAGTGAAAGACATCTGCAGCTGTGAACGGGGGTA 540
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        481 TTTCTCTGCTTCTGCAAAAGGACTTCAAGTGAAAGACATCTGCAGCTGTGAACGGGGGTA 540

Qy        541 AAACCCTCCCTGCCCCAGGCCCCAAGCAAGGATTTCCCTAGCGGGGAGGAAGGTAGAATC 600
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        541 AAACCCTCCCTGCCCCAGGCCCCAAGCAAGGATTTCCCTAGCGGGGAGGAAGGTAGAATC 600

Qy        601 GAGAGACCTCTAACCCTGGGAGAGGAGGGAGGGAAATCTCCGAGGACCAGGGTTATGCAA 660
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        601 GAGAGACCTCTAACCCTGGGAGAGGAGGGAGGGAAATCTCCGAGGACCAGGGTTATGCAA 660

Qy        661 CAACACAAGGGAAGTACCTGCTGGGTTCTGGGGGTTGGGGAAGGAAAATCCCTACTGCCC 720
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        661 CAACACAAGGGAAGTACCTGCTGGGTTCTGGGGGTTGGGGAAGGAAAATCCCTACTGCCC 720

Qy        721 CAAGAGCCAGCCCCGAACCCAAGGCACAGCTTATACTGGCCCCGGGGCCTGGGGGGGCAC 780
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        721 CAAGAGCCAGCCCCGAACCCAAGGCACAGCTTATACTGGCCCCGGGGCCTGGGGGGGCAC 780

Qy        781 GAAAACCTTGAAAAAGGGGCGCCTTCCCAGCTTCCCCGGGGGTAAGGGCTTTACCCCCCA 840
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        781 GAAAACCTTGAAAAAGGGGCGCCTTCCCAGCTTCCCCGGGGGTAAGGGCTTTACCCCCCA 840

Qy        841 GAGGGGGGGGGAAAAATCCGAGTGGGATCTTTCCCAACCGCCGAAGACTAAAACCTTTAA 900
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        841 GAGGGGGGGGGAAAAATCCGAGTGGGATCTTTCCCAACCGCCGAAGACTAAAACCTTTAA 900

Qy        901 ACCCCCAAAGAAACCTTCTA 920
              ||||||||||||||||||||
Db        901 ACCCCCAAAGAAACCTTCTA 920


RESULT 2
AEL40763
ID   AEL40763 standard; DNA; 920 BP.
XX
AC   AEL40763;
XX
DT   11-JUN-2007  (revised)
DT   11-JAN-2007  (first entry)
XX
DE   Human tumor-associated DNA SEQ ID NO 1.
```

XX
KW antigen; tumor; neoplasm; diagnosis; therapeutic; cytostatic;
KW tumor-associated antigen; colon tumor; rectal tumor; renal tumor;
KW adrenal tumor; breast tumor; prostate tumor; uterus tumor; ovary tumor;
KW endometroid carcinoma; esophagus tumor; liver tumor; pancreas tumor;
KW skin tumor; brain tumor; lung tumor; lymphoma; nervous system tumor;
KW carcinoma; chromosome-6; gene; ds.
XX
OS Homo sapiens.
XX
PN WO2006100089-A2.
XX
PD 28-SEP-2006.
XX
PF 23-MAR-2006; 2006WO-EP002695.
XX
PR 24-MAR-2005; 2005DE-10013846.
XX
PA (GANY-) GANYMED PHARM AG.
XX
PI Sahin U, Tuereci O, Koslowski M, Helftenbein G, Usener D;
PI Schlueter V;
XX
DR WPI; 2006-789387/80.
DR P-PSDB; AEL40764.
DR PC:NCBI; gi22697845.
XX
PT Pharmaceutical composition containing inhibitors of specific tumor-
PT associated antigens, useful for treating cancers, also diagnosis and
PT monitoring using antigen-specific reagents.
XX
PS Claim 1; SEQ ID NO 1; 398pp; German.
XX
CC This invention describes a novel method of identifying surface-associated
CC antigens for tumor diagnosis and therapy whereby tumor-associated genetic
CC products are identified and treated. The therapy and diagnosis applies to
CC diseases in which the tumor-associated products are aberrantly expressed,
CC i.e. proteins, polypeptides and peptides expressed in association with
CC the tumor and it encodes nucleic acis for said proteins, polypeptides and
CC peptides. The novel process has applications in medicine, particularly
CC oncology and can be used to make pharmaceuticals for the therapy of
CC colon, rectal, kidney, adrenal glands, breast, prostate, uterus, ovary,
CC endometrial, esophagus, blood, liver, pancreas, skin, brain, lung
CC cancers, lymphoma, neuroblastoma or other carcinomas. This sequence
CC encodes a tumor-associated protein used in the method of the invention
CC which is localized on chromosome 6 (6q26-27).
CC
CC Revised record issued on 11-JUN-2007 : Enhanced with precomputed
CC information from BOND.

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XX
SQ   Sequence 920 BP; 238 A; 255 C; 255 G; 172 T; 0 U; 0 Other;

  Query Match             100.0%;  Score 920;  DB 3;  Length 920;
  Best Local Similarity   100.0%;  Pred. No. 2.3e-273;
  Matches  920;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 TCTGTAGAGGGGAATGGCTGCTGTGTCATGGGGGTGCATGAGCAGCCCAGTGGAGAGGTG 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 TCTGTAGAGGGGAATGGCTGCTGTGTCATGGGGGTGCATGAGCAGCCCAGTGGAGAGGTG 60

Qy         61 CACTTGGTGAGAAACCGATGCCTCTGCCAACCACCTGCACTAACCTGCTGGGTCTGAGAC 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 CACTTGGTGAGAAACCGATGCCTCTGCCAACCACCTGCACTAACCTGCTGGGTCTGAGAC 120

Qy        121 TGAGCCACTTTGGAAGCTGATCTTGGAGCACCAGTCAAGCCCTTAGCTGGCTGCAGCCAC 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 TGAGCCACTTTGGAAGCTGATCTTGGAGCACCAGTCAAGCCCTTAGCTGGCTGCAGCCAC 180

Qy        181 AGCCAACAACAAGACTGCAACCTCCTGGGGGATCCTGAGCCAGAATCCCCTGGCTAAATT 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 AGCCAACAACAAGACTGCAACCTCCTGGGGGATCCTGAGCCAGAATCCCCTGGCTAAATT 240

Qy        241 GCTCCTTGATTCTTAACCCACAGAAATTGTGTAAGACCTCCATCAGGTGTCGACAAGGAA 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 GCTCCTTGATTCTTAACCCACAGAAATTGTGTAAGACCTCCATCAGGTGTCGACAAGGAA 300

Qy        301 GATCCCAGTAGGGCAGGAGACAGGAGCACCTCTGCTGTGGCCAATGCAGGAATGCTGGCC 360
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Db        301 GATCCCAGTAGGGCAGGAGACAGGAGCACCTCTGCTGTGGCCAATGCAGGAATGCTGGCC 360

Qy        361 ATCATTGCTTCTGCTGGGCGACTGAGAAGCATCACCCACTTCCCCAGAACCTTTTTTACG 420
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        361 ATCATTGCTTCTGCTGGGCGACTGAGAAGCATCACCCACTTCCCCAGAACCTTTTTTACG 420

Qy        421 TGGAGTGAAAACTTTAAGGGGCTGTCCAGCTAAACCTCCAACCTCCAGATCCCATGCCAA 480
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        421 TGGAGTGAAAACTTTAAGGGGCTGTCCAGCTAAACCTCCAACCTCCAGATCCCATGCCAA 480

Qy        481 TTTCTCTGCTTCTGCAAAAGGACTTCAAGTGAAAGACATCTGCAGCTGTGAACGGGGGTA 540
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        481 TTTCTCTGCTTCTGCAAAAGGACTTCAAGTGAAAGACATCTGCAGCTGTGAACGGGGGTA 540

Qy        541 AAACCCTCCCTGCCCCAGGCCCCAAGCAAGGATTTCCCTAGCGGGGAGGAAGGTAGAATC 600
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        541 AAACCCTCCCTGCCCCAGGCCCCAAGCAAGGATTTCCCTAGCGGGGAGGAAGGTAGAATC 600

Qy        601 GAGAGACCTCTAACCCTGGGAGAGGAGGGAGGGAAATCTCCGAGGACCAGGGTTATGCAA 660
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
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Db        601 GAGAGACCTCTAACCCTGGGAGAGGAGGGAGGGAAATCTCCGAGGACCAGGGTTATGCAA 660

Qy        661 CAACACAAGGGAAGTACCTGCTGGGTTCTGGGGGTTGGGGAAGGAAAATCCCTACTGCCC 720
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        661 CAACACAAGGGAAGTACCTGCTGGGTTCTGGGGGTTGGGGAAGGAAAATCCCTACTGCCC 720

Qy        721 CAAGAGCCAGCCCCGAACCCAAGGCACAGCTTATACTGGCCCCGGGGCCTGGGGGGGCAC 780
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        721 CAAGAGCCAGCCCCGAACCCAAGGCACAGCTTATACTGGCCCCGGGGCCTGGGGGGGCAC 780

Qy        781 GAAAACCTTGAAAAAGGGGCGCCTTCCCAGCTTCCCCGGGGGTAAGGGCTTTACCCCCCA 840
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        781 GAAAACCTTGAAAAAGGGGCGCCTTCCCAGCTTCCCCGGGGGTAAGGGCTTTACCCCCCA 840

Qy        841 GAGGGGGGGGGAAAAATCCGAGTGGGATCTTTCCCAACCGCCGAAGACTAAAACCTTTAA 900
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        841 GAGGGGGGGGGAAAAATCCGAGTGGGATCTTTCCCAACCGCCGAAGACTAAAACCTTTAA 900

Qy        901 ACCCCCAAAGAAACCTTCTA 920
              ||||||||||||||||||||
Db        901 ACCCCCAAAGAAACCTTCTA 920
```

RESULT 3
ADZ14751/c
ID ADZ14751 standard; DNA; 390 BP.
XX
AC ADZ14751;
XX
DT 16-JUN-2005 (first entry)
XX
DE ORF DNA encoding a human tumor associated antigen Seq 267.
XX
KW chromosome 6; tumor-associated antigen; antisense therapy;
KW RNA interference; diagnosis; cytostatic; cancer; metastasis; gene; ds.
XX
OS Homo sapiens.
XX
PN WO2005030250-A2.
XX
PD 07-APR-2005.
XX
PF 23-SEP-2004; 2004WO-EP010697.
XX
PR 26-SEP-2003; 2003DE-01044799.
XX
PA (GANY-) GANYMED PHARM AG.
XX
PI Tuereci O, Sahin U, Helftenbein G, Schlueter V;

XX
DR WPI; 2005-285105/29.
DR P-PSDB; ADZ14752.
XX
PT Compositions for treating and diagnosing cancer, contain agents that
PT inhibit activity or expression of specific tumor-associated antigens, or
PT bind to these antigens or nucleic acid encoding them.
XX
PS Claim 1; SEQ ID NO 267; 388pp; German.
XX
CC This invention relates to a novel pharmaceutical composition which
CC comprises an agent that inhibits the activity or expression of a specific
CC tumor-associated antigen (TAg). Specifically, it relates to tumor-
CC associated antigens that are encoded by one of the following 75 nucleic
CC acids sequences, fragments or derivatives thereof as given in the
CC specification. The present invention describes antisense nucleic acids
CC that hybridize to these TAg polynucleotides that may be used for
CC antisense therapy and RNA interference, as well as methods for diagnosing
CC a disease associated with (abnormal) expression of TAg. Accordingly, it
CC further relates to methods for determining regression, progression and
CC onset of a disease by administering an antibody, optionally linked to a
CC therapeutic or diagnostic agent, that binds to TAg. As such, cytostatic
CC compositions derived thereof are used for treating a wide range of
CC cancers and their metastases, where the agents that bind specifically to
CC TAg, and the nucleic acids that encode them, are useful for diagnosis and
CC monitoring. This polynucleotide is a human DNA open reading frame
CC sequence encoding a tumor associated antigenic protein of the invention.
XX
SQ Sequence 390 BP; 101 A; 99 C; 88 G; 102 T; 0 U; 0 Other;

Query Match 19.4%; Score 178.2; DB 2; Length 390;
Best Local Similarity 93.5%; Pred. No. 6.7e-44;
Matches 186; Conservative 0; Mismatches 13; Indels 0; Gaps 0;

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Qy        328 ACCTCTGCTGTGGCCAATGCAGGAATGCTGGCCATCATTGCTTCTGCTGGGCGACTGAGA 387
              | |||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        264 ATCTCTGCTGTGGCCAATGCAGGAATGCTGGCCATCATTGCTTCTGCTGGGCGACTGAGA 205

Qy        388 AGCATCACCCACTTCCCCAGAACCTTTTTTACGTGGAGTGAAAACTTTAAGGGGCTGTCC 447
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        204 AGCATCACCCACTTCCCCAGAACCTTTTTTACGTGGAGTGAAAACTTTAAGGGGCTGTCC 145

Qy        448 AGCTAAACCTCCAACCTCCAGATCCCATGCCAATTTCTCTGCTTCTGCAAAAGGACTTCA 507
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        144 AGCTAAACCTCCAACCTCCAGATCCCATGCCAATTTCTCTGCTTCTGCAAAAGGACTCAT 85

Qy        508 AGTGAAAGACATCTGCAGC 526
                |  |  |  |||  ||||
Db         84 GGGCAGCGTTATCCACAGC 66
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RESULT 4
AEL41029/c
ID AEL41029 standard; DNA; 390 BP.
XX
AC AEL41029;
XX
DT 11-JAN-2007 (first entry)
XX
DE Human tumor-associated DNA SEQ ID NO 267.
XX
KW antigen; tumor; neoplasm; diagnosis; therapeutic; cytostatic;
KW tumor-associated antigen; colon tumor; rectal tumor; renal tumor;
KW adrenal tumor; breast tumor; prostate tumor; uterus tumor; ovary tumor;
KW endometroid carcinoma; esophagus tumor; liver tumor; pancreas tumor;
KW skin tumor; brain tumor; lung tumor; lymphoma; nervous system tumor;
KW carcinoma; chromosome-6; gene; ds.
XX
OS Homo sapiens.
XX
PN WO2006100089-A2.
XX
PD 28-SEP-2006.
XX
PF 23-MAR-2006; 2006WO-EP002695.
XX
PR 24-MAR-2005; 2005DE-10013846.
XX
PA (GANY-) GANYMED PHARM AG.
XX
PI Sahin U, Tuereci O, Koslowski M, Helftenbein G, Usener D;
PI Schlueter V;
XX
DR WPI; 2006-789387/80.
DR P-PSDB; AEL41030.
XX
PT Pharmaceutical composition containing inhibitors of specific tumor-
PT associated antigens, useful for treating cancers, also diagnosis and
PT monitoring using antigen-specific reagents.
XX
PS Claim 1; SEQ ID NO 267; 398pp; German.
XX
CC This invention describes a novel method of identifying surface-associated
CC antigens for tumor diagnosis and therapy whereby tumor-associated genetic
CC products are identified and treated. The therapy and diagnosis applies to
CC diseases in which the tumor-associated products are aberrantly expressed,
CC i.e. proteins, polypeptides and peptides expressed in association with
CC the tumor and it encodes nucleic acis for said proteins, polypeptides and

```
CC   peptides. The novel process has applications in medicine, particularly
CC   oncology and can be used to make pharmaceuticals for the therapy of
CC   colon, rectal, kidney, adrenal glands, breast, prostate, uterus, ovary,
CC   endometrial, esophagus, blood, liver, pancreas, skin, brain, lung
CC   cancers, lymphoma, neuroblastoma or other carcinomas. This sequence
CC   encodes a tumor-associated protein used in the method of the invention
CC   which is localized on chromosome 6 (6q26-27).
XX
SQ   Sequence 390 BP; 101 A; 99 C; 87 G; 102 T; 0 U; 1 Other;

  Query Match             19.2%;  Score 176.6;  DB 3;  Length 390;
  Best Local Similarity   93.0%;  Pred. No. 2.1e-43;
  Matches  185;  Conservative    0;  Mismatches   14;  Indels    0;  Gaps    0;

Qy        328 ACCTCTGCTGTGGCCAATGCAGGAATGCTGGCCATCATTGCTTCTGCTGGGCGACTGAGA 387
              | |||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        264 ATCTCTGCTGTGGCCAATGCAGGAATGCTGGCCATCATTGCTTCTGCTGGGCGACTGAGA 205

Qy        388 AGCATCACCCACTTCCCCAGAACCTTTTTTACGTGGAGTGAAAACTTTAAGGGGCTGTCC 447
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        204 AGCATCACCCACTTCCCCAGAACCTTTTTTACGTGGAGTGAAAACTTTAAGGGGCTGTCC 145

Qy        448 AGCTAAACCTCCAACCTCCAGATCCCATGCCAATTTCTCTGCTTCTGCAAAAGGACTTCA 507
              |||||||||||||||||||||| ||||||||||||||||||||||||||||||||||
Db        144 AGCTAAACCTCCAACCTCCAGATWCCATGCCAATTTCTCTGCTTCTGCAAAAGGACTCAT 85

Qy        508 AGTGAAAGACATCTGCAGC 526
                |  |  |  |||  ||||
Db         84 GGGCAGCGTTATCCACAGC 66


RESULT 5
ADY36463
ID   ADY36463 standard; DNA; 561 BP.
XX
AC   ADY36463;
XX
DT   05-MAY-2005  (first entry)
XX
DE   HIRA genomic fragment SEQ ID NO 108.
XX
KW   hybridization; DNA detection; neoplasm; genetic disorder; cytogenetics;
KW   HIRA; ds.
XX
OS   Homo sapiens.
XX
PN   WO200188089-A2.
XX
PD   22-NOV-2001.
```

XX
PF 15-MAY-2001; 2001WO-US015674.
XX
PR 16-MAY-2000; 2000US-00573080.
PR 14-MAY-2001; 2001US-00854867.
XX
PA (CHIL-) CHILDREN'S MERCY HOSPITAL.
XX
PI Knoll JHM, Rogan PK, Cazarro PM;
XX
DR WPI; 2002-062378/08.
XX
PT Single copy genomic hybridization probes for detecting specific nucleic
PT acid sequences in sample by in situ hybridization useful for detection of
PT acquired or inherited genetic diseases.
XX
PS Example 1; SEQ ID NO 108; 67pp; English.
XX
CC The invention describes a nucleic acid hybridization probe (I) comprising
CC a labeled, single copy nucleic acids of at least 50 nucleotides, which
CC will hybridize to a deduced single copy sequence interval in target
CC nucleic acid (TNA) of known sequence. (I) is useful in a hybridization
CC method which comprises preparing a reaction mixture comprising TNA and
CC (I) which hybridizes to TNA, and causing (I) to hybridize to TNA, where
CC the hybridization method is from in situ hybridization, Southern blot,
CC and other methods in which nucleic acid is immobilized, where the method
CC further comprises selecting a single copy nucleic acid which will
CC hybridize to a duplicon or triplicon sequence domain. (I) is useful for:
CC determining the existence of previously unknown repeat sequence families
CC in a genome; determining a chromosome breakpoint and in the fields of
CC cytogenetics and molecular genetics for determining the presence of
CC specific nucleic acid sequences in a sample of eukaryotic origin, e.g.
CC the probes may be used to analyze specific chromosomal locations by in
CC situ hybridization as a detection of acquired or inherited genetic
CC diseases especially for detection of genetic or neoplastic disorders.
CC Unlike prior art techniques, (I) permits more precise chromosomal
CC breakpoint determinations by in situ hybridization. Hybridization
CC techniques utilizing (I), have made it possible to obtain reliable,
CC easily detectable signals with relatively small probes. A readily
CC detectable signal was obtained with a probe on the order of 2 kb in
CC length, using fluorescent in situ hybridization (FISH) technology. This
CC sensitivity of (I) is improved compared to the prior art, because the
CC probes of (I) are homogeneous single copy sequences. However, smaller
CC amplified segments, each comprising non-repetitive sequences, may also be
CC used in combination as probes to achieve adequate signals for in situ
CC hybridization. Complex single copy probes that hybridize to duplicated or
CC triplicated targets can also increase hybridization signals. This
CC sequence represents a human HIRA genomic sequence that shows homology to
CC a known high-complexity repeat sequence family of the human genome and is

```
CC   used in the creation of an HIRA gene probe.
XX
SQ   Sequence 561 BP; 146 A; 146 C; 124 G; 141 T; 0 U; 4 Other;

  Query Match             13.3%;  Score 122.6;  DB 1;  Length 561;
  Best Local Similarity   69.6%;  Pred. No. 1.3e-26;
  Matches  201;  Conservative    0;  Mismatches   74;  Indels   14;  Gaps    2;

Qy          2 CTGTAGAGGGGAATGGCTGCTGTGTCATGGGGGTGCATGAGCAGCCCAGTGGAGAGGTGC 61
              || | | ||      |||||  ||||||| ||   |   |||||||| |||||||||  |
Db        201 CTCTGGGGGAAGCCAGCTGCCATGTCATGAGGACACTCAAGCAGCCCTGTGGAGAGGCCC 260

Qy         62 ACTTGGTGAGAAACCGATGCCT-CTGCCAACCACCTGCACTAACCTGCTGGGTC------ 114
              |  |||  || ||| || |||| ||||||||  || |||   | |||  |  ||
Db        261 ATGTGGCAAGGAACTGAGGCCTCCTGCCAACAGCCAGCAAGGAACTGAGGCCTCCTGCCA 320

Qy        115 -------TGAGACTGAGCCACTTTGGAAGCTGATCTTGGAGCACCAGTCAAGCCCTTAGC 167
                  || || |||||||  |||||||| |||| |  ||| |||||||||| | ||
Db        321 ACAGCCATGTGAGTGAGCCATCTTGGAAGCAGATCCTCCAGCCCCAGTCAAGCCTTCAGA 380

Qy        168 TGGCTGCAGCCACAGCCAACAACAAGACTGCAACCTCCTGGGGGATCCTGAGCCAGAATC 227
              || |||||||| |||| |||| |  |||||||||||| || | || |||||||||||| |
Db        381 TGACTGCAGCCCCAGCTAACATCTTGACTGCAACCTCATGAGAGACCCTGAGCCAGAACC 440

Qy        228 CCCTGGCTAAATTGCTCCTTGATTCTTAACCCACAGAAATTGTGTAAGA 276
               ||  |||||  |||||||  |||| | ||||||||||| ||||  |||
Db        441 ACCCAGCTAAGCTGCTCCTAAATTCCTGACCCACAGAAACTGTGAGAGA 489


RESULT 6
ADS31075
ID   ADS31075 standard; DNA; 561 BP.
XX
AC   ADS31075;
XX
DT   18-NOV-2004  (first entry)
XX
DE   Human genome high complexity repeat found in the HIRA gene #108.
XX
KW   Human; ds;
KW   histone cell cycle regulation defective, S. cerevisiae homologue A; HIRA;
KW   high complexity repeat; in situ hybridisation; Southern blot;
KW   chromosome breakpoint; inherited genetic disease; neoplastic disorder;
KW   chromosome 22; DiGeorge syndrome; Velo-Cardio-facial syndrome.
XX
OS   Homo sapiens.
XX
PN   US2003224356-A1.
XX
```

PD 04-DEC-2003.
XX
PF 14-MAY-2001; 2001US-00854867.
XX
PR 16-MAY-2000; 2000US-00573080.
XX
PA (KNOL/) KNOLL J H M.
PA (ROGA/) ROGAN P K.
XX
PI Knoll JHM, Rogan PK;
XX
DR WPI; 2002-062378/08.
XX
PT Single copy genomic hybridization probes for detecting specific nucleic
PT acid sequences in sample by in situ hybridization useful for detection of
PT acquired or inherited genetic diseases.
XX
PS Example 1; SEQ ID NO 108; 30pp; English.
XX
CC The invention relates to a nucleic acid hybridisation probe comprising a
CC labelled, single copy nucleic acids of at least 50 nucleotides, which
CC will hybridise to a deduced single copy sequence interval in target
CC nucleic acid (TNA) of known sequence. The single copy sequence is deduced
CC by comparing the target nucleic acid (e.g. a disease causing gene) with a
CC collection of high and low complexity repeat sequences as found in the
CC genome of the organism from containing the target nucleic acid. The probe
CC is generated by PCR on the target sequence. The probe is essentially free
CC of blocking nucleic acid sequences which will hybridise to repeat
CC sequences within the genome of which the TNA is a part, and is labelled
CC with a label selected from fluorochrome-responsive labels, fluorochromes,
CC calorimetric chemical, conjugated proteins, antibodies, antigens and
CC their mixtures. The probe is useful in a hybridisation method, where the
CC hybridisation method is from in situ hybridisation, Southern blot, and
CC other methods in which nucleic acid is immobilised, where the method
CC further comprises selecting a single copy nucleic acid which will
CC hybridise to a duplicon or triplicon sequence domain. The probe is useful
CC for determining the existence of previously unknown repeat sequence
CC families in a genome. The method comprises reacting a labelled probe with
CC the genome, causing the probe to hybridise and ascertaining if the probe
CC hybridises to the genome at more than three preferably ten different
CC locations as a determination of new repeat sequence family, where the
CC determining step comprises selecting the single copy sequence from a
CC duplicon or triplicon sequence domain. The probe is useful for
CC determining a chromosome breakpoint and is useful in the fields for
CC cytogenetics and molecular genetics for determining the presence of
CC specific nucleic acid sequences in a sample of eukaryotic origin, e.g.
CC the probes may be used to analyse specific chromosomal locations by in
CC situ hybridisation as a detection of acquired or inherited genetic
CC diseases especially for detection of genetic or neoplastic disorders.

```
CC   Unlike prior art techniques, the probe permits more precise chromosomal
CC   breakpoint determinations by in situ hybridisation. The genomic sequence
CC   comprising the human HIRA gene (histone cell cycle regulation defective,
CC   S. cerevisiae, homologue A) was analysed for single copy sequence
CC   intervals for use as probes of the invention. HIRA is located on
CC   chromosome 22 as a duplicate, deletions of 1 copy lead to DiGeorge and
CC   Velo-Cardio-facial syndromes. The present sequence is a high complexity
CC   repeat found within the human genome used to analyse the HIRA gene for
CC   repeat regions. Note: The sequence data for this patent did not form part
CC   of the printed specification, but was obtained in electronic format
CC   directly from USPTO at seqdata.uspto.gov/sequence.html?DocID=20030224356.
XX
SQ   Sequence 561 BP; 146 A; 146 C; 124 G; 141 T; 0 U; 4 Other;

  Query Match             13.3%;  Score 122.6;  DB 1;  Length 561;
  Best Local Similarity   69.6%;  Pred. No. 1.3e-26;
  Matches  201;  Conservative    0;  Mismatches   74;  Indels   14;  Gaps    2;

Qy          2 CTGTAGAGGGGAATGGCTGCTGTGTCATGGGGGTGCATGAGCAGCCCAGTGGAGAGGTGC 61
              || | | ||      |||||  ||||||| ||    |   |||||||| |||||||||  |
Db        201 CTCTGGGGGAAGCCAGCTGCCATGTCATGAGGACACTCAAGCAGCCCTGTGGAGAGGCCC 260

Qy         62 ACTTGGTGAGAAACCGATGCCT-CTGCCAACCACCTGCACTAACCTGCTGGGTC------ 114
              |  |||  || ||| || |||| ||||||||  || |||   | |||  |  ||
Db        261 ATGTGGCAAGGAACTGAGGCCTCCTGCCAACAGCCAGCAAGGAACTGAGGCCTCCTGCCA 320

Qy        115 -------TGAGACTGAGCCACTTTGGAAGCTGATCTTGGAGCACCAGTCAAGCCCTTAGC 167
                  || || |||||||  |||||||| |||| |  ||| |||||||||| | ||
Db        321 ACAGCCATGTGAGTGAGCCATCTTGGAAGCAGATCCTCCAGCCCCAGTCAAGCCTTCAGA 380

Qy        168 TGGCTGCAGCCACAGCCAACAACAAGACTGCAACCTCCTGGGGGATCCTGAGCCAGAATC 227
              || |||||||| |||| |||| |  |||||||||||| || | || ||||||||||| |
Db        381 TGACTGCAGCCCCAGCTAACATCTTGACTGCAACCTCATGAGAGACCCTGAGCCAGAACC 440

Qy        228 CCCTGGCTAAATTGCTCCTTGATTCTTAACCCACAGAAATTGTGTAAGA 276
               ||  |||||  ||||  |||||||  |||| | |||||||||| ||||  |||
Db        441 ACCCAGCTAAGCTGCTCCTAAATTCCTGACCCACAGAAACTGTGAGAGA 489


RESULT 7
ADY36462
ID   ADY36462 standard; DNA; 541 BP.
XX
AC   ADY36462;
XX
DT   05-MAY-2005  (first entry)
XX
DE   HIRA genomic fragment SEQ ID NO 107.
XX
```

KW hybridization; DNA detection; neoplasm; genetic disorder; cytogenetics;
KW HIRA; ds.
XX
OS Homo sapiens.
XX
PN WO200188089-A2.
XX
PD 22-NOV-2001.
XX
PF 15-MAY-2001; 2001WO-US015674.
XX
PR 16-MAY-2000; 2000US-00573080.
PR 14-MAY-2001; 2001US-00854867.
XX
PA (CHIL-) CHILDREN'S MERCY HOSPITAL.
XX
PI Knoll JHM, Rogan PK, Cazarro PM;
XX
DR WPI; 2002-062378/08.
XX
PT Single copy genomic hybridization probes for detecting specific nucleic
PT acid sequences in sample by in situ hybridization useful for detection of
PT acquired or inherited genetic diseases.
XX
PS Example 1; SEQ ID NO 107; 67pp; English.
XX
CC The invention describes a nucleic acid hybridization probe (I) comprising
CC a labeled, single copy nucleic acids of at least 50 nucleotides, which
CC will hybridize to a deduced single copy sequence interval in target
CC nucleic acid (TNA) of known sequence. (I) is useful in a hybridization
CC method which comprises preparing a reaction mixture comprising TNA and
CC (I) which hybridizes to TNA, and causing (I) to hybridize to TNA, where
CC the hybridization method is from in situ hybridization, Southern blot,
CC and other methods in which nucleic acid is immobilized, where the method
CC further comprises selecting a single copy nucleic acid which will
CC hybridize to a duplicon or triplicon sequence domain. (I) is useful for:
CC determining the existence of previously unknown repeat sequence families
CC in a genome; determining a chromosome breakpoint and in the fields of
CC cytogenetics and molecular genetics for determining the presence of
CC specific nucleic acid sequences in a sample of eukaryotic origin, e.g.
CC the probes may be used to analyze specific chromosomal locations by in
CC situ hybridization as a detection of acquired or inherited genetic
CC diseases especially for detection of genetic or neoplastic disorders.
CC Unlike prior art techniques, (I) permits more precise chromosomal
CC breakpoint determinations by in situ hybridization. Hybridization
CC techniques utilizing (I), have made it possible to obtain reliable,
CC easily detectable signals with relatively small probes. A readily
CC detectable signal was obtained with a probe on the order of 2 kb in
CC length, using fluorescent in situ hybridization (FISH) technology. This

```
CC   sensitivity of (I) is improved compared to the prior art, because the
CC   probes of (I) are homogeneous single copy sequences. However, smaller
CC   amplified segments, each comprising non-repetitive sequences, may also be
CC   used in combination as probes to achieve adequate signals for in situ
CC   hybridization. Complex single copy probes that hybridize to duplicated or
CC   triplicated targets can also increase hybridization signals. This
CC   sequence represents a human HIRA genomic sequence that shows homology to
CC   a known high-complexity repeat sequence family of the human genome and is
CC   used in the creation of an HIRA gene probe.
XX
SQ   Sequence 541 BP; 135 A; 137 C; 123 G; 126 T; 0 U; 20 Other;

  Query Match             13.2%;  Score 121.2;  DB 1;  Length 541;
  Best Local Similarity   68.8%;  Pred. No. 3.5e-26;
  Matches  190;  Conservative    3;  Mismatches   81;  Indels    2;  Gaps    2;

Qy          2 CTGTAGAGGGGAATGGCTGCTGTGTCATGGGGGTGCATGAGCAGCCCAGTGGAGAGGTGC 61
              || | | ||       |||||  ||  |||  |   |   ||||||| | |||||| || |
Db        197 CTCTGGGGGAAGCCAGCTGCCATGCTATGAAGACACTCAAGCAGCCTA-TGGAGAAGTCC 255

Qy         62 ACTTGGTGAGAAACCGATGCCT-CTGCCAACCACCTGCACTAACCTGCTGGGTCTGAGAC 120
              || |||  || ||| || | || ||||||||  || ||    ||:|||  |   || ||
Db        256 ACGTGGSAAGGAACTGAGGTCTCCTGCCAACAGCCAGCTTCGACYTGCCAGCCATGTGAG 315

Qy        121 TGAGCCACTTTGGAAGCTGATCTTGGAGCACCAGTCAAGCCCTTAGCTGGCTGCAGCCAC 180
              |||||||  |||||||| |||| |  ||| |||||:||||| | || || |||||||| |
Db        316 TGAGCCATCTTGGAAGCGGATCCTCCAGCCCCAGTYAAGCCTTCAGATGACTGCAGCCCC 375

Qy        181 AGCCAACAACAAGACTGCAACCTCCTGGGGGGATCCTGAGCCAGAATCCCCTGGCTAAATT 240
               ||  ||| |  |||||||||||| || | || ||||||||||||   ||  |||||  |
Db        376 GGCTGACATCTTGACTGCAACCTCATGAGAGACCCTGAGCCAGAACTACCCAGCTAAGCT 435

Qy        241 GCTCCTTGATTCTTAACCCACAGAAATTGTGTAAGA 276
              |||||| :|||| | |||||||||| ||||  | |
Db        436 GCTCCTARATTCCTGACCCACAGAAACTGTGAGATA 471


RESULT 8
ADS31074
ID   ADS31074 standard; DNA; 541 BP.
XX
AC   ADS31074;
XX
DT   18-NOV-2004  (first entry)
XX
DE   Human genome high complexity repeat found in the HIRA gene #107.
XX
KW   Human; ds;
KW   histone cell cycle regulation defective, S. cerevisiae homologue A; HIRA;
```

KW high complexity repeat; in situ hybridisation; Southern blot;
KW chromosome breakpoint; inherited genetic disease; neoplastic disorder;
KW chromosome 22; DiGeorge syndrome; Velo-Cardio-facial syndrome.
XX
OS Homo sapiens.
XX
PN US2003224356-A1.
XX
PD 04-DEC-2003.
XX
PF 14-MAY-2001; 2001US-00854867.
XX
PR 16-MAY-2000; 2000US-00573080.
XX
PA (KNOL/) KNOLL J H M.
PA (ROGA/) ROGAN P K.
XX
PI Knoll JHM, Rogan PK;
XX
DR WPI; 2002-062378/08.
XX
PT Single copy genomic hybridization probes for detecting specific nucleic
PT acid sequences in sample by in situ hybridization useful for detection of
PT acquired or inherited genetic diseases.
XX
PS Example 1; SEQ ID NO 107; 30pp; English.
XX
CC The invention relates to a nucleic acid hybridisation probe comprising a
CC labelled, single copy nucleic acids of at least 50 nucleotides, which
CC will hybridise to a deduced single copy sequence interval in target
CC nucleic acid (TNA) of known sequence. The single copy sequence is deduced
CC by comparing the target nucleic acid (e.g. a disease causing gene) with a
CC collection of high and low complexity repeat sequences as found in the
CC genome of the organism from containing the target nucleic acid. The probe
CC is generated by PCR on the target sequence. The probe is essentially free
CC of blocking nucleic acid sequences which will hybridise to repeat
CC sequences within the genome of which the TNA is a part, and is labelled
CC with a label selected from fluorochrome-responsive labels, fluorochromes,
CC calorimetric chemical, conjugated proteins, antibodies, antigens and
CC their mixtures. The probe is useful in a hybridisation method, where the
CC hybridisation method is from in situ hybridisation, Southern blot, and
CC other methods in which nucleic acid is immobilised, where the method
CC further comprises selecting a single copy nucleic acid which will
CC hybridise to a duplicon or triplicon sequence domain. The probe is useful
CC for determining the existence of previously unknown repeat sequence
CC families in a genome. The method comprises reacting a labelled probe with
CC the genome, causing the probe to hybridise and ascertaining if the probe
CC hybridises to the genome at more than three preferably ten different
CC locations as a determination of new repeat sequence family, where the

```
CC   determining step comprises selecting the single copy sequence from a
CC   duplicon or triplicon sequence domain. The probe is useful for
CC   determining a chromosome breakpoint and is useful in the fields for
CC   cytogenetics and molecular genetics for determining the presence of
CC   specific nucleic acid sequences in a sample of eukaryotic origin, e.g.
CC   the probes may be used to analyse specific chromosomal locations by in
CC   situ hybridisation as a detection of acquired or inherited genetic
CC   diseases especially for detection of genetic or neoplastic disorders.
CC   Unlike prior art techniques, the probe permits more precise chromosomal
CC   breakpoint determinations by in situ hybridisation. The genomic sequence
CC   comprising the human HIRA gene (histone cell cycle regulation defective,
CC   S. cerevisiae, homologue A) was analysed for single copy sequence
CC   intervals for use as probes of the invention. HIRA is located on
CC   chromosome 22 as a duplicate, deletions of 1 copy lead to DiGeorge and
CC   Velo-Cardio-facial syndromes. The present sequence is a high complexity
CC   repeat found within the human genome used to analyse the HIRA gene for
CC   repeat regions. Note: The sequence data for this patent did not form part
CC   of the printed specification, but was obtained in electronic format
CC   directly from USPTO at seqdata.uspto.gov/sequence.html?DocID=20030224356.
XX
SQ   Sequence 541 BP; 135 A; 137 C; 123 G; 126 T; 0 U; 20 Other;

  Query Match             13.2%;  Score 121.2;  DB 1;  Length 541;
  Best Local Similarity   68.8%;  Pred. No. 3.5e-26;
  Matches  190;  Conservative    3;  Mismatches   81;  Indels    2;  Gaps    2;

Qy          2 CTGTAGAGGGGAATGGCTGCTGTGTCATGGGGGTGCATGAGCAGCCCAGTGGAGAGGTGC 61
              || | | ||       |||||  ||  |||  |   |   ||||||| | |||||| || |
Db        197 CTCTGGGGGAAGCCAGCTGCCATGCTATGAAGACACTCAAGCAGCCTA-TGGAGAAGTCC 255

Qy         62 ACTTGGTGAGAAACCGATGCCT-CTGCCAACCACCTGCACTAACCTGCTGGGTCTGAGAC 120
              || |||  || ||| || | || ||||||||  || ||    ||:||| |   || ||
Db        256 ACGTGGSAAGGAACTGAGGTCTCCTGCCAACAGCCAGCTTCGACYTGCCAGCCATGTGAG 315

Qy        121 TGAGCCACTTTGGAAGCTGATCTTGGAGCACCAGTCAAGCCCTTAGCTGGCTGCAGCCAC 180
              |||||||  |||||||| |||| |  ||| |||||:||||| | || || |||||||| |
Db        316 TGAGCCATCTTGGAAGCGGATCCTCCAGCCCCAGTYAAGCCTTCAGATGACTGCAGCCCC 375

Qy        181 AGCCAACAACAAGACTGCAACCTCCTGGGGGATCCTGAGCCAGAATCCCCTGGCTAAATT 240
               ||  ||| |  |||||||||||| || | || ||||||||||||   ||  |||||  |
Db        376 GGCTGACATCTTGACTGCAACCTCATGAGAGACCCTGAGCCAGAACTACCCAGCTAAGCT 435

Qy        241 GCTCCTTGATTCTTAACCCACAGAAATTGTGTAAGA 276
              |||||| :|||| | |||||||||||| ||||  | |
Db        436 GCTCCTARATTCCTGACCCACAGAAACTGTGAGATA 471


RESULT 9
ADC20771
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```
ID   ADC20771 standard; DNA; 737 BP.
XX
AC   ADC20771;
XX
DT   18-DEC-2003  (first entry)
XX
DE   Human secreted protein-related DNA sequence #189.
XX
KW   gene therapy; human; secreted protein; haemopoietic disorder;
KW   haematological disorder; anaemia; haemophilia; inflammatory disorder;
KW   inflammatory bowel disease; Crohn's disease; neoplastic disease; cancer;
KW   leukaemia; wound healing; epithelial cell proliferation disorder;
KW   immune disorder; autoimmune disorder; asthmatic disorder;
KW   cardiovascular disorder; atherosclerosis; myocarditis;
KW   infectious disease; HIV; AIDS; endocrine disorder; diabetes;
KW   gastrointestinal disorder; duodenal ulcer; gastroenteritis; gene; ds.
XX
OS   Homo sapiens.
XX
PN   WO200292787-A2.
XX
PD   21-NOV-2002.
XX
PF   26-MAR-2002; 2002WO-US009257.
XX
PR   27-MAR-2001; 2001US-0278650P.
PR   12-SEP-2001; 2001US-00950082.
PR   12-SEP-2001; 2001US-00950083.
XX
PA   (HUMA-) HUMAN GENOME SCI INC.
XX
PI   Rosen CA,  Ruben SM;
XX
DR   WPI; 2003-129287/12.
XX
PT   New human secreted proteins and nucleic acid molecules, useful for
PT   preparing a diagnostic or pharmaceutical composition for diagnosing,
PT   preventing or treating hematopoietic or hematologic disorders, e.g.
PT   anemia or hemophilia.
XX
PS   Disclosure; SEQ ID NO 725; 1512pp; English.
XX
CC   The invention comprises the amino acid and coding sequences of human
CC   secreted proteins. The DNA and protein sequences of the invention are
CC   useful for detecting, preventing, diagnosing, prognosticating, treating
CC   or ameliorating: haematopoietic or haematological disorders (e.g. anaemia
CC   and haemophilia); inflammatory disorders (e.g. inflammatory bowel disease
CC   and Crohn's disease); neoplastic disease (e.g. cancer and leukaemia);
CC   wound healing and disorders of epithelial cell proliferation; immune
```

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CC   disorders (e.g. autoimmune disorders and asthmatic disorders);
CC   cardiovascular disorders (e.g. atherosclerosis and myocarditis);
CC   infectious disease (e.g. HIV/AIDS); endocrine disorders (e.g. diabetes);
CC   and gastrointestinal disorders (e.g. duodenal ulcers and
CC   gastroenteritis). The present DNA sequence was used in the
CC   exemplification of the invention.
XX
SQ   Sequence 737 BP; 198 A; 174 C; 148 G; 217 T; 0 U; 0 Other;

  Query Match             11.4%;  Score 104.8;  DB 1;  Length 737;
  Best Local Similarity   68.5%;  Pred. No. 4.9e-21;
  Matches  174;  Conservative    0;  Mismatches   77;  Indels    3;  Gaps    2;

Qy          24 TGTCATGGGGGTGCATGAGCAGCCCAGTGGAGAGGTGCACTTGGTGAGAAACCGATGCCT 83
               | ||||| || | |   ||||  ||  ||||||| | ||| |||||||||| || ||||
Db         398 TTTCATGAGGATACTCAAGCATTCCTATGGAGAGATCCACATGGTGAGAAACTGAAGCCT 457

Qy          84 -CTGCCAACCACCTGCACTAACCTGCTGGGTCTGAGACTGAGCCACTTTGGAAGCTGATC 142
                || ||||   || |||| ||| |||  | | || || |||||||  || ||||  | |
Db         458 CCTACCAAGAGCCAGCACCAACTTGCCAGCTATGTGAATGAGCCATCTTAGAAGTGGGTT 517

Qy         143 TTGGAGCACCAGTCAAGCCCTTAGCTGGCTGCAGCCACAGCCAACAACAAGACTGCAACC 202
                |  ||| | ||||| ||| | |  || |||||||||  ||  | |    |||| |||||
Db         518 CTCTAGCCCTAGTCAGGCCTTCATATGACTGCAGCCAGGGCTGATATTTTGACTACAACC 577

Qy         203 TCCTGGGGGATCCTGAGCCAGAATCCCCTGGCTAAATTGCTCCTTGATTCTTAACCCACA 262
               || || | ||  |||||||| ||   ||| |||||   ||||||  ||||   ||| |||
Db         578 TCATGAGAGA--CTGAGCCACAACAACCTAGCTAAGAAGCTCCTGAATTCCCTACCAACA 635

Qy         263 GAAATTGTGTAAGA 276
               |||| | ||| |||
Db         636 GAAACTATGTGAGA 649


RESULT 10
ADA44374
ID   ADA44374 standard; DNA; 737 BP.
XX
AC   ADA44374;
XX
DT   20-NOV-2003  (first entry)
XX
DE   Human secreted protein DNA SEQ ID 567.
XX
KW   Gene therapy; human; Antidiabetic; Anorectic; Ophthalmological;
KW   Neuroprotective; Cerebroprotective; Antianemic; ds.
XX
OS   Homo sapiens.
XX
```

PN WO2003000865-A2.
XX
PD 03-JAN-2003.
XX
PF 26-MAR-2002; 2002WO-US009105.
XX
PR 27-MAR-2001; 2001US-0278650P.
PR 12-SEP-2001; 2001US-00950082.
PR 12-SEP-2001; 2001US-00950083.
XX
PA (HUMA-) HUMAN GENOME SCI INC.
XX
PI Rosen CA, Ruben SM;
XX
DR WPI; 2003-184045/18.
XX
PT A human secreted protein and nucleic acids useful for preparing a
PT diagnostic or pharmaceutical composition for diagnosing or treating
PT diabetes or conditions related to diabetes, e.g. hyperglycemia, obesity,
PT retinopathy, neuropathy.
XX
PS Disclosure; SEQ ID NO 567; 701pp; English.
XX
CC The invention relates to novel genes and their fragments which are useful
CC for preventing, treating or ameliorating medical conditions e.g. by
CC protein or gene therapy. The genes are isolated from a range of human
CC tissues disclosed in the specification. The nucleic acids and proteins
CC are useful in the diagnosis, treatment and prevention of conditions
CC related to diabetes, e.g. hyperglycaemia, obesity, retinopathy,
CC polyneuropathy, atherosclerosis, anaemia, stroke, gangrene, impotence,
CC infection, cataract, renal disorders, or endocrine disorders. The present
CC sequence was used to illustrate the invention.
XX
SQ Sequence 737 BP; 198 A; 174 C; 148 G; 217 T; 0 U; 0 Other;

Query Match 11.4%; Score 104.8; DB 1; Length 737;
Best Local Similarity 68.5%; Pred. No. 4.9e-21;
Matches 174; Conservative 0; Mismatches 77; Indels 3; Gaps 2;

```
Qy         24 TGTCATGGGGGTGCATGAGCAGCCCAGTGGAGAGGTGCACTTGGTGAGAAACCGATGCCT 83
              | ||||| || | |   ||||  ||  ||||||| | ||| ||||||||||| || ||||
Db        398 TTTCATGAGGATACTCAAGCATTCCTATGGAGAGATCCACATGGTGAGAAACTGAAGCCT 457

Qy         84 -CTGCCAACCACCTGCACTAACCTGCTGGGTCTGAGACTGAGCCACTTTGGAAGCTGATC 142
               || ||||   || |||| ||| |||  | | || || |||||||  || ||||  | |
Db        458 CCTACCAAGAGCCAGCACCAACTTGCCAGCTATGTGAATGAGCCATCTTAGAAGTGGGTT 517

Qy        143 TTGGAGCACCAGTCAAGCCCTTAGCTGGCTGCAGCCACAGCCAACAACAAGACTGCAACC 202
               |  ||| | ||||| ||| | |  || |||||||||  ||  | |    |||| |||||
```

```
Db        518 CTCTAGCCCTAGTCAGGCCTTCATATGACTGCAGCCAGGGCTGATATTTTGACTACAACC 577

Qy        203 TCCTGGGGGATCCTGAGCCAGAATCCCCTGGCTAAATTGCTCCTTGATTCTTAACCCACA 262
              || || | ||  |||||||| ||   ||| |||||   ||||||  ||||   ||| |||
Db        578 TCATGAGAGA--CTGAGCCACAACAACCTAGCTAAGAAGCTCCTGAATTCCCTACCAACA 635

Qy        263 GAAATTGTGTAAGA 276
              |||| | ||| |||
Db        636 GAAACTATGTGAGA 649
```

RESULT 11
ADF10918
ID ADF10918 standard; DNA; 737 BP.
XX
AC ADF10918;
XX
DT 12-FEB-2004 (first entry)
XX
DE Human secreted protein encoding sequence #240.
XX
KW H6EDM64; HBHAA05; HBJCR46; HBJKD16; HCMSX51; HCQBH72; HDPPQ30; HE2CM39;
KW HE9EA10; HGBHP91; HLDQU79; Cytostatic; Hepatotropic; Antidiabetic;
KW Antiinflammatory; neuroprotective; Anti-HIV; Vulnerary; Gynecological;
KW Antiinfertility; Gene therapy; gastrointestinal disorder; cancer;
KW Alzheimer's disease; chromosome identification; ds.
XX
OS Homo sapiens.
XX
PN WO200299085-A2.
XX
PD 12-DEC-2002.
XX
PF 26-MAR-2002; 2002WO-US009135.
XX
PR 27-MAR-2001; 2001US-0278650P.
PR 12-SEP-2001; 2001US-00950082.
PR 12-SEP-2001; 2001US-00950083.
XX
PA (HUMA-) HUMAN GENOME SCI INC.
XX
PI Rosen CA, Ruben SM;
XX
DR WPI; 2003-221310/21.
XX
PT New human secreted polypeptides for diagnosing and treating neural,
PT immune system, muscular, reproductive, gastrointestinal, cardiovascular,
PT renal, and proliferative disorders and cancerous diseases.
XX

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PS   Claim 7; SEQ ID NO 381; 855pp; English.
XX
CC   The present invention relates to an isolated polypeptide chosen from 123
CC   human secreted proteins, such as, H6EDM64, HBHAA05, HBJCR46, HBJKD16,
CC   HCMSX51, HCQBH72, HDPPQ30, HE2CM39, HE9EA10, HGBHP91 and HLDQU79. The
CC   polypeptides are useful for the preparation of a diagnostic or
CC   pharmaceutical composition for diagnosing or and are useful for treating
CC   or preventing diseases or conditions, such as neural, immune system,
CC   muscular, reproductive, gastrointestinal, pulmonary, cardiovascular,
CC   renal, proliferative disorders and cancerous diseases and conditions. The
CC   polypeptides have immune activity, chemotactic activity, and binding
CC   activity. to treat and prevent neuronal damage which occurs in certain
CC   neuronal disorders or neuro-degenerative conditions such as Alzheimer's
CC   disease, Parkinson's disease, and acquired immunodeficiency syndrome
CC   (AIDS)-related complex, and to prevent skin aging due to sunburn by
CC   stimulating keratinocyte growth. The molecules are also useful to
CC   modulate mammalian characteristics including .The encoding sequences are
CC   useful for chromosome identification, radiation hybrid mapping, in gene
CC   therapy, for identifying individuals from minute biological samples, as
CC   additional DNA markers for restriction fragment length polymorphism
CC   (RFLP), in forensic biology, molecular weight markers on Southern gels,
CC   as diagnostic probes for the presence of a specific mRNA in a particular
CC   cell type, to raise anti-DNA antibodies using DNA immunization
CC   techniques, and as an antigen to elicit an immune response. The present
CC   sequence represents a human secreted protein encoding sequence of the
CC   invention.
XX
SQ   Sequence 737 BP; 198 A; 174 C; 148 G; 217 T; 0 U; 0 Other;

  Query Match             11.4%;  Score 104.8;  DB 1;  Length 737;
  Best Local Similarity   68.5%;  Pred. No. 4.9e-21;
  Matches  174;  Conservative    0;  Mismatches   77;  Indels    3;  Gaps    2;

Qy          24 TGTCATGGGGGTGCATGAGCAGCCCAGTGGAGAGGTGCACTTGGTGAGAAACCGATGCCT 83
               | ||||| || | |   ||||  ||  ||||||| | ||| |||||||||| || ||||
Db         398 TTTCATGAGGATACTCAAGCATTCCTATGGAGAGATCCACATGGTGAGAAACTGAAGCCT 457

Qy          84 -CTGCCAACCACCTGCACTAACCTGCTGGGTCTGAGACTGAGCCACTTTGGAAGCTGATC 142
                || ||||   || |||| ||| |||  | | || || |||||||  || ||||  | |
Db         458 CCTACCAAGAGCCAGCACCAACTTGCCAGCTATGTGAATGAGCCATCTTAGAAGTGGGTT 517

Qy         143 TTGGAGCACCAGTCAAGCCCTTAGCTGGCTGCAGCCACAGCCAACAACAAGACTGCAACC 202
               |  ||| | ||||| ||| | |  || |||||||||  ||  | |    |||| |||||
Db         518 CTCTAGCCCTAGTCAGGCCTTCATATGACTGCAGCCAGGGCTGATATTTTGACTACAACC 577

Qy         203 TCCTGGGGGATCCTGAGCCAGAATCCCCTGGCTAAATTGCTCCTTGATTCTTAACCCACA 262
               || || | ||  |||||||| ||   ||| |||||   ||||||  ||||   ||| |||
Db         578 TCATGAGAGA--CTGAGCCACAACAACCTAGCTAAGAAGCTCCTGAATTCCCTACCAACA 635
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```
Qy        263 GAAATTGTGTAAGA 276
              |||| | ||| |||
Db        636 GAAACTATGTGAGA 649


RESULT 12
ADA98650
ID   ADA98650 standard; DNA; 737 BP.
XX
AC   ADA98650;
XX
DT   20-NOV-2003  (first entry)
XX
DE   Human secreted protein-related DNA sequence #243.
XX
KW   human; secreted protein; cardiovascular disorder; arrhythmia;
KW   atherosclerosis; stroke; endocarditis; congestive heart failure;
KW   rheumatic heart disease; cardiomyopathy; hemorrhoids; varicose veins;
KW   migraine; thrombosis; neural disorder; immune system disorder;
KW   muscular disorder; reproductive disorder; gastrointestinal disorder;
KW   pulmonary disorder; renal disorder; proliferative disorder; cancer; ds.
XX
OS   Homo sapiens.
XX
PN   WO2003004623-A2.
XX
PD   16-JAN-2003.
XX
PF   26-MAR-2002; 2002WO-US009922.
XX
PR   27-MAR-2001; 2001US-0278650P.
PR   12-SEP-2001; 2001US-00950082.
PR   12-SEP-2001; 2001US-00950083.
XX
PA   (HUMA-) HUMAN GENOME SCI INC.
XX
PI   Rosen CA,  Ruben SM;
XX
DR   WPI; 2003-247946/24.
XX
PT   New human secreted polypeptide and nucleic acid molecules, useful for
PT   diagnosing, preventing, prognosticating or treating cardiovascular
PT   disorders (e.g. arrhythmia, atherosclerosis, cardiomyopathy, or
PT   thrombosis).
XX
PS   Disclosure; SEQ ID NO 759; 1572pp; English.
XX
CC   The invention comprises the amino acid and coding sequence of human
CC   secreted proteins. The DNA and protein sequences of the invention are
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CC   useful in the treatment of cardiovascular disorders, such as: arrhythmia,
CC   atherosclerosis, stroke, endocarditis, congestive heart failure,
CC   rheumatic heart disease, cardiomyopathy, hemorrhoids, varicose veins,
CC   migraine, or thrombosis. The DNA and protein sequences may also be used
CC   for treating or preventing: neural disorders, immune system disorders,
CC   muscular disorders, reproductive disorders, gastrointestinal disorders,
CC   pulmonary disorders, renal disorders, proliferative disorders and/or
CC   cancerous diseases. The present DNA sequence is used in the
CC   exemplification of the invention. NOTE: The present sequence is shown on
CC   the WIPO website.
XX
SQ   Sequence 737 BP; 198 A; 174 C; 148 G; 217 T; 0 U; 0 Other;

  Query Match             11.4%;  Score 104.8;  DB 1;  Length 737;
  Best Local Similarity   68.5%;  Pred. No. 4.9e-21;
  Matches  174;  Conservative    0;  Mismatches   77;  Indels    3;  Gaps    2;

Qy         24 TGTCATGGGGGTGCATGAGCAGCCCAGTGGAGAGGTGCACTTGGTGAGAAACCGATGCCT 83
              | ||||| || | |   ||||  ||  ||||||| | ||| ||||||||||| || ||||
Db        398 TTTCATGAGGATACTCAAGCATTCCTATGGAGAGATCCACATGGTGAGAAACTGAAGCCT 457

Qy         84 -CTGCCAACCACCTGCACTAACCTGCTGGGTCTGAGACTGAGCCACTTTGGAAGCTGATC 142
               || ||||   || |||| ||| |||  | | || || |||||||  || ||||  | |
Db        458 CCTACCAAGAGCCAGCACCAACTTGCCAGCTATGTGAATGAGCCATCTTAGAAGTGGGTT 517

Qy        143 TTGGAGCACCAGTCAAGCCCTTAGCTGGCTGCAGCCACAGCCAACAACAAGACTGCAACC 202
               |  ||| | ||||| ||| | |  || |||||||||  ||  | |    |||| |||||
Db        518 CTCTAGCCCTAGTCAGGCCTTCATATGACTGCAGCCAGGGCTGATATTTTGACTACAACC 577

Qy        203 TCCTGGGGGATCCTGAGCCAGAATCCCCTGGCTAAATTGCTCCTTGATTCTTAACCCACA 262
              || || | ||  |||||||| ||   ||| |||||   ||||||  ||||   ||| |||
Db        578 TCATGAGAGA--CTGAGCCACAACAACCTAGCTAAGAAGCTCCTGAATTCCCTACCAACA 635

Qy        263 GAAATTGTGTAAGA 276
              |||| | ||| |||
Db        636 GAAACTATGTGAGA 649


RESULT 13
AOD72587
ID   AOD72587 standard; cDNA; 737 BP.
XX
AC   AOD72587;
XX
DT   01-MAY-2008  (first entry)
XX
DE   Human secreted protein cDNA sequence, SEQ ID 6677.
XX
KW   therapy; cancer; cytostatic; immune disorder; immunomodulator;
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KW hematological disease; antianemic; reproduction disorder;
KW musculoskeletal disease; muscular-gen.; osteopathic;
KW genitourinary disease; uropathic; neurological disease; neuroprotective;
KW respiratory disease; respiratory-gen.; endocrine disease; endocrine-gen.;
KW gastrointestinal disease; gastrointestinal-gen.; gene; ss.
XX
OS Homo sapiens.
XX
PN US2007032413-A1.
XX
PD 08-FEB-2007.
XX
PF 26-MAR-2002; 2002US-00105299.
XX
PR 26-MAR-2002; 2002US-00105299.
XX
PA (ROSE/) ROSEN C A.
PA (RUBE/) RUBEN S M.
XX
PI Rosen CA, Ruben SM;
XX
DR WPI; 2007-341847/32.
XX
PT New isolated human secreted proteins, useful for detecting, preventing,
PT diagnosing, prognosticating, treating, or ameliorating diseases and
PT disorders related to the proteins, e.g. cancers, reproductive, or
PT cardiovascular diseases.
XX
PS Example 1; SEQ ID NO 6677; 339pp; English.
XX
CC The present invention relates to human secreted polypeptides and their
CC coding sequences. Also claimed are: a composition comprising the
CC polypeptide and a carrier; and an isolated protein produced by (a)
CC expressing the polypeptide by a cell; and (b) recovering the protein.
CC Also disclosed as new are: antibodies that bind these polypeptides;
CC vectors; host cells; recombinant and synthetic methods for producing the
CC polynucleotides, polypeptides, and/or antibodies; screening methods for
CC identifying agonists and antagonists of polynucleotides and polypeptides;
CC and methods and compositions for inhibiting or enhancing the production
CC and function of the polypeptides. The polypeptides are useful for
CC detecting, preventing, diagnosing, prognosticating, treating, and/or
CC ameliorating diseases and disorders related to the proteins or
CC polypeptides. Diseases and disorders include cancers;
CC immune/hematopoietic disorders (e.g. anemia, pancytopenia, leukopenia,
CC thrombocytopenia, or plasmacytomas); reproductive disorders (e.g.
CC cryptorchism, prostatitis, inguinal hernia, varicocele, or leydig cell
CC tumors); musculoskeletal disorders (e.g. osteochondromas, benign
CC chondromas, Paget's disease, or rheumatoid arthritis); cardiovascular
CC diseases (e.g. heart failure, congestive heart disease, arrhythmia,

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CC   tachycardia, or hypertension); excretory disorders (e.g. bladder cancer,
CC   prostate cancer, benign prostatic hyperplasia, bladder disorders, or
CC   renal disorders); neural/sensory disorders (e.g. brain cancer,
CC   Alzheimer's disease, Creutzfeldt-Jakob disease, Parkinson's disease, or
CC   encephalomyelitis); respiratory diseases (e.g. lung cancer, allergic
CC   reactions, cystic fibrosis, sarcoidosis, or pulmonary fibrosis);
CC   endocrine disorders (e.g. diabetes, obesity, disorders related to
CC   pituitary glands, hypothyroidism, hyperthyroidism, or goiter); digestive
CC   disorders (e.g. appendicitis, Crohn's disease, hepatitis, pancreatitis,
CC   or ulcerative disease); and connective/epithelial disorders (e.g.
CC   connective tissue metaplasia, mixed connective tissue disease, focal
CC   epithelial hyperplasia, epithelial metaplasia, or graft vs. host
CC   disease). The present sequence is one such secreted protein
CC   polynucleotide sequence.
XX
SQ   Sequence 737 BP; 198 A; 174 C; 148 G; 217 T; 0 U; 0 Other;

  Query Match             11.4%;  Score 104.8;  DB 3;  Length 737;
  Best Local Similarity   68.5%;  Pred. No. 4.9e-21;
  Matches  174;  Conservative    0;  Mismatches   77;  Indels    3;  Gaps    2;

Qy         24 TGTCATGGGGGTGCATGAGCAGCCCAGTGGAGAGGTGCACTTGGTGAGAAACCGATGCCT 83
              | ||||| || | |   ||||  ||  ||||||| | ||| |||||||||||| || ||||
Db        398 TTTCATGAGGATACTCAAGCATTCCTATGGAGAGATCCACATGGTGAGAAACTGAAGCCT 457

Qy         84 -CTGCCAACCACCTGCACTAACCTGCTGGGTCTGAGACTGAGCCACTTTGGAAGCTGATC 142
               || ||||   || |||| ||| |||  | | || || ||||||||  || ||||  | |
Db        458 CCTACCAAGAGCCAGCACCAACTTGCCAGCTATGTGAATGAGCCATCTTAGAAGTGGGTT 517

Qy        143 TTGGAGCACCAGTCAAGCCCTTAGCTGGCTGCAGCCACAGCCAACAACAAGACTGCAACC 202
               |  ||| | ||||| ||| | |  || |||||||||  ||  | |    |||| |||||
Db        518 CTCTAGCCCTAGTCAGGCCTTCATATGACTGCAGCCAGGGCTGATATTTTGACTACAACC 577

Qy        203 TCCTGGGGGATCCTGAGCCAGAATCCCCTGGCTAAATTGCTCCTTGATTCTTAACCCACA 262
              || || | ||  |||||||| ||   ||| |||||  ||||||  ||||   ||| |||
Db        578 TCATGAGAGA--CTGAGCCACAACAACCTAGCTAAGAAGCTCCTGAATTCCCTACCAACA 635

Qy        263 GAAATTGTGTAAGA 276
              |||| | ||| |||
Db        636 GAAACTATGTGAGA 649


RESULT 14
AAC79717
ID   AAC79717 standard; cDNA; 797 BP.
XX
AC   AAC79717;
XX
DT   12-FEB-2001  (first entry)
```

XX
DE Human secreted protein gene 37 SEQ ID NO:47.
XX
KW Human; secreted protein; diagnosis; cytostatic; immunosuppressive;
KW nootropic; neuroprotective; antiviral; antiallergic; hepatotropic;
KW antidiabetic; antiinflammatory; antiulcer; vulnerary; anticonvulsant;
KW antibacterial; antifungal; antiparasitic; cardiant; gene therapy;
KW food additive; preservative; chromosome identification; cancer;
KW immune disorder; cardiovascular disorder; neurological disease;
KW wound healing; infectious disease; ss.
XX
OS Homo sapiens.
XX
PN WO200058339-A2.
XX
PD 05-OCT-2000.
XX
PF 22-MAR-2000; 2000WO-US007440.
XX
PR 26-MAR-1999; 99US-0126503P.
PR 17-DEC-1999; 99US-0172409P.
XX
PA (HUMA-) HUMAN GENOME SCI INC.
XX
PI Rosen CA, Ruben SM, Komatsoulis G;
XX
DR WPI; 2000-594637/56.
DR P-PSDB; AAB44632.
XX
PT Fifty nucleic acid molecules encoding human secreted proteins, useful in
PT the prevention, treatment and diagnosis of cancer, immune disorders,
PT cardiovascular disorders and neurological diseases.
XX
PS Claim 1; Page 357-358; 410pp; English.
XX
CC The polynucleotide sequences given in AAC79681 to AAC79730 encode the
CC human secreted proteins given in AAB44596 to AAB44645. AAB44646 to
CC AAB44693 represent human secreted polypeptide sequences and proteins
CC homologous to them, which are given in the exemplification of the present
CC invention. Human secreted proteins have activities based on the tissues
CC and cells the genes are expressed in. Examples of activities include:
CC cytostatic; immunosuppressive; nootropic; neuroprotective; antiviral;
CC antiallergic; hepatotropic; antidiabetic; antiinflammatory; antiulcer;
CC vulnerary; anticonvulsant; antibacterial; antifungal; antiparasitic; and
CC cardiant. The polynucleotides and polypeptides are useful for preventing,
CC treating or ameliorating a medical condition in e.g. humans, mice,
CC rabbits, goats, horses, cats, dogs, chickens or sheep. The polypeptides
CC can also be used as a food additive or preservative to increase or
CC decrease storage capabilities. The polynucleotides are useful for

```
CC   chromosome identification. They are also useful as probes for diagnosing
CC   a disorder related to the female reproductive system, particularly breast
CC   and/or ovary cancer. They are also useful in the gene therapy of breast
CC   and ovarian cancer. The nucleic acids, protein, antibodies, agonists and
CC   antagonists from the present invention are useful in the diagnosis,
CC   treatment and prevention of: cancer; immune disorders; cardiovascular
CC   disorders; wound healing; neurological diseases; and infectious diseases.
CC   AAC79672 to AAC79680 and AAB44595 represent sequences used in the
CC   exemplification of the present invention
XX
SQ   Sequence 797 BP; 269 A; 173 C; 149 G; 206 T; 0 U; 0 Other;

  Query Match             11.4%;  Score 104.8;  DB 1;  Length 797;
  Best Local Similarity   68.5%;  Pred. No. 5e-21;
  Matches  174;  Conservative    0;  Mismatches   77;  Indels    3;  Gaps    2;

Qy         24 TGTCATGGGGGTGCATGAGCAGCCCAGTGGAGAGGTGCACTTGGTGAGAAACCGATGCCT 83
              | ||||| || | |   ||||  ||  ||||||| | ||| |||||||||||| || ||||
Db        383 TTTCATGAGGATACTCAAGCATTCCTATGGAGAGATCCACATGGTGAGAAACTGAAGCCT 442

Qy         84 -CTGCCAACCACCTGCACTAACCTGCTGGGTCTGAGACTGAGCCACTTTGGAAGCTGATC 142
               || ||||   || |||| ||| |||  | | || || |||||||  || ||||  | |
Db        443 CCTACCAAGAGCCAGCACCAACTTGCCAGCTATGTGAATGAGCCATCTTAGAAGTGGGTT 502

Qy        143 TTGGAGCACCAGTCAAGCCCTTAGCTGGCTGCAGCCACAGCCAACAACAAGACTGCAACC 202
              |  ||| | ||||| ||| | |  || ||||||||  ||  | |    |||| |||||
Db        503 CTCTAGCCCTAGTCAGGCCTTCATATGACTGCAGCCAGGGCTGATATTTTGACTACAACC 562

Qy        203 TCCTGGGGGATCCTGAGCCAGAATCCCCTGGCTAAATTGCTCCTTGATTCTTAACCCACA 262
              || || | ||  |||||||| ||   ||| |||||   ||||||  ||||   ||| |||
Db        563 TCATGAGAGA--CTGAGCCACAACAACCTAGCTAAGAAGCTCCTGAATTCCCTACCAACA 620

Qy        263 GAAATTGTGTAAGA 276
              |||| | ||| |||
Db        621 GAAACTATGTGAGA 634


RESULT 15
ADC20168
ID   ADC20168 standard; DNA; 797 BP.
XX
AC   ADC20168;
XX
DT   18-DEC-2003  (first entry)
XX
DE   Human secreted protein coding sequence #107.
XX
KW   gene therapy; human; secreted protein; haemopoietic disorder;
KW   haematological disorder; anaemia; haemophilia; inflammatory disorder;
```

KW inflammatory bowel disease; Crohn's disease; neoplastic disease; cancer;
KW leukaemia; wound healing; epithelial cell proliferation disorder;
KW immune disorder; autoimmune disorder; asthmatic disorder;
KW cardiovascular disorder; atherosclerosis; myocarditis;
KW infectious disease; HIV; AIDS; endocrine disorder; diabetes;
KW gastrointestinal disorder; duodenal ulcer; gastroenteritis; gene; ds.
XX
OS Homo sapiens.
XX
PN WO200292787-A2.
XX
PD 21-NOV-2002.
XX
PF 26-MAR-2002; 2002WO-US009257.
XX
PR 27-MAR-2001; 2001US-0278650P.
PR 12-SEP-2001; 2001US-00950082.
PR 12-SEP-2001; 2001US-00950083.
XX
PA (HUMA-) HUMAN GENOME SCI INC.
XX
PI Rosen CA, Ruben SM;
XX
DR WPI; 2003-129287/12.
XX
PT New human secreted proteins and nucleic acid molecules, useful for
PT preparing a diagnostic or pharmaceutical composition for diagnosing,
PT preventing or treating hematopoietic or hematologic disorders, e.g.
PT anemia or hemophilia.
XX
PS Claim 1; SEQ ID NO 117; 1512pp; English.
XX
CC The invention comprises the amino acid and coding sequences of human
CC secreted proteins. The DNA and protein sequences of the invention are
CC useful for detecting, preventing, diagnosing, prognosticating, treating
CC or ameliorating: haematopoietic or haematological disorders (e.g. anaemia
CC and haemophilia); inflammatory disorders (e.g. inflammatory bowel disease
CC and Crohn's disease); neoplastic disease (e.g. cancer and leukaemia);
CC wound healing and disorders of epithelial cell proliferation; immune
CC disorders (e.g. autoimmune disorders and asthmatic disorders);
CC cardiovascular disorders (e.g. atherosclerosis and myocarditis);
CC infectious disease (e.g. HIV/AIDS); endocrine disorders (e.g. diabetes);
CC and gastrointestinal disorders (e.g. duodenal ulcers and
CC gastroenteritis). The present DNA sequence encodes a human secreted
CC protein of the invention.
XX
SQ Sequence 797 BP; 269 A; 173 C; 149 G; 206 T; 0 U; 0 Other;

Query Match 11.4%; Score 104.8; DB 1; Length 797;

```
  Best Local Similarity   68.5%;  Pred. No. 5e-21;
  Matches  174;  Conservative    0;  Mismatches   77;  Indels    3;  Gaps    2;

Qy          24 TGTCATGGGGGTGCATGAGCAGCCCAGTGGAGAGGTGCACTTGGTGAGAAACCGATGCCT 83
               | ||||| || | |   ||||  ||  ||||||| | ||| ||||||||||| || ||||
Db         383 TTTCATGAGGATACTCAAGCATTCCTATGGAGAGATCCACATGGTGAGAAACTGAAGCCT 442

Qy          84 -CTGCCAACCACCTGCACTAACCTGCTGGGTCTGAGACTGAGCCACTTTGGAAGCTGATC 142
                || ||||   || |||| ||| |||  | | || || ||||||| || ||||  | |
Db         443 CCTACCAAGAGCCAGCACCAACTTGCCAGCTATGTGAATGAGCCATCTTAGAAGTGGGTT 502

Qy         143 TTGGAGCACCAGTCAAGCCCTTAGCTGGCTGCAGCCACAGCCAACAACAAGACTGCAACC 202
                |  ||| | ||||| ||| | |  || |||||||||  ||  | |    |||| |||||
Db         503 CTCTAGCCCTAGTCAGGCCTTCATATGACTGCAGCCAGGGCTGATATTTTGACTACAACC 562

Qy         203 TCCTGGGGGATCCTGAGCCAGAATCCCCTGGCTAAATTGCTCCTTGATTCTTAACCCACA 262
               || || | ||  |||||||| ||   ||| |||||   ||||||  ||||   ||| |||
Db         563 TCATGAGAGA--CTGAGCCACAACAACCTAGCTAAGAAGCTCCTGAATTCCCTACCAACA 620

Qy         263 GAAATTGTGTAAGA 276
               |||| | ||| |||
Db         621 GAAACTATGTGAGA 634


Search completed: May 31, 2009, 21:51:40
Job time : 342 secs
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